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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,443	06/20/2001	Takuyuki Yamaguchi	45355/DBP/T360	5763

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EXAMINER	
BELLO, AGUSTIN	

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/886,443	YAMAGUCHI ET AL.	
	Examiner	Art Unit	
	Agustin Bello	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-39 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-39 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 6/20/01.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Way (U.S. Patent No. 6,583,903).

Regarding claims 1, 3, 16, 18, 32, 34, 36, and 38, Way teaches measuring a bit error rate of the received signal at each of a plurality of discrimination thresholds (as seen in Figure 7) by changing a polarization direction of an optical signal to enter the optical transmission line (column 9 lines 8-11, column 10 lines 13-20) to detect the worst error rate at each discrimination threshold; and searching a predetermined bit error rate from the plurality of the detected worst bit error rates (as seen in Figures 13-15) and searching a discrimination threshold of the received signal according to the predetermined bit error rate (as indicated in Figure 7 and column 16 lines 39-47).

Regarding claims 2, 4, 7, 10, 12, 17, 19, 22, 25, and 27, Way teaches that the predetermined bit error rate comprises the lowest bit error rate (reference numeral 734 in Figure 7) assumed from the plurality of the detected worst bit error rates.

Regarding claims 5, 8, 11, 13, 14, 20, 23, 26, 28, and 29, Way teaches a polarization controller (reference numeral 1010 in Figure 10) disposed between an optical transmitter

(reference numeral 1002 in Figure 10) for outputting an optical signal and the optical transmission line (reference numeral 1020 in Figure 10) to rotate polarization of the optical signal output from the optical transmitter; a photodetector (reference numeral 1042 in Figure 10) to convert the optical signal propagated on the optical transmission line into an electric signal; a discrimination circuit (reference numeral 1052 in Figure 10) to discriminate the output from the photodetector according to a discrimination threshold (reference numeral 1110 in Figure 11); an error rate measuring circuit (reference numeral 1072 in Figure 10) to measure a bit error rate of the output from the discrimination circuit; and a control circuit (reference numeral 1092 in Figure 10) which controls the polarization rotating amount of the polarization controller (reference numeral 1010 in Figure 10) and the discrimination threshold of the discrimination circuit (reference numeral 1110 in Figure 11) to search the worst bit error rate at each discrimination threshold by changing the polarization rotating amount of the polarization controller at each of a plurality of discrimination thresholds and to search a discrimination threshold having a predetermined bit error rate out of the worst bit error rates.

Regarding claims 6, 9, 15, 21, 24, and 30, Way teaches that the control circuit (reference numeral 1140 in Figure 11) sets the discrimination circuit (reference numeral 1052 in Figure 10) for a finally obtained discrimination threshold (e.g. reference numeral 734 in Figure 7).

Regarding claim 31, 33, 35, 37, and 39, Way teaches searching a predetermined error rate from the plurality of the detected worst bit error rates comprises: detecting a worst bit error rate at a plurality of discrimination thresholds (reference numeral 702 in Figure 7); connecting the points representing the worst bit error rate at the plurality of discrimination thresholds to form two substantially straight intersecting lines (reference numeral 730, 732 in Figure 7); and using a

point representing the intersection of the two substantially straight intersecting lines as the predetermined error rate (reference numeral 734 in Figure 7).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Agustin Bello
Examiner
Art Unit 2633

AB

JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600